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HAHN LOESER & PARKS, LLP
One GOJO Plaza
Suite 300
AKRON, OH 44311-1076

EXAMINER	
CASCHERA, ANTONIO A	

ART UNIT	PAPER NUMBER
2628	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/083,626	ISAKOVIC ET AL.	
	Examiner	Art Unit	
	Antonio A. Caschera	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 39-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 39-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 June 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in the pending application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. (U.S. Patent 5,825,336) in view of Lipkin (U.S. Patent 5,999,944).

In reference to claim 1, Fujita et al. discloses a remote operation apparatus having remote display terminals for processing and displaying video data with remote control processing (see column 1, lines 6-8). Fujita et al. discloses the apparatus comprising of a master display terminal and at least one slave terminal and further, Fujita et al. discloses an alternate embodiment where a plurality of slave terminals are implemented (see column 1, lines 62-64 and Figures 1 & 20). Note, since the terminals (master display terminal and multiple slave terminals) of Fujita et al. operate upon video data, the Office interprets the terminals functionally equivalent to a "graphics master unit" and "graphics client units" respectively. Fujita et al. discloses the master terminal receiving an input signal associated and set by using a keyboard or mouse (see column 6, lines

64-67) which the Office interprets functionally equivalent to the external input unit and input signal elements of Applicant's claim. Fujita et al. also discloses the master terminal comprising an interface unit, which connects the terminal to a communications network (see columns 5-6, lines 65-3 and #013 & 014 of Figure 1). Note, the Office interprets this interface unit functionally equivalent to the first message channel of Applicant's claim. Fujita et al. discloses the master terminal comprising a random access memory and a data receiving portion for receiving video data transmitted from a slave terminal (see column 5, lines 47-54, column 5-6, lines 65-3 and column 6, lines 54-55). Fujita et al. discloses the video data forwarded onto an operational data generation portion (see column 6, lines 55-63). Fujita et al. further explicitly discloses the master terminal using the operational data, set via a keyboard or mouse signal, to convert display position data and the received video data, correcting for display characteristics on a slave terminal and then transmitting this data to the slave display terminal (see columns 6-7, lines 64-6). Fujita et al. also discloses the master terminal computing and transmitting screen parameters indicative of quality, region enlargement ratio etc. to the slave terminal (see column 7, lines 7-10). Note, this data is inherently sent via the interface unit (mentioned above) and first message channel, to the slave terminal (see Figure 1), therefore the Office interprets such data functionally equivalent to the "first message" of Applicant's claim. Fujita et al. discloses a plurality of slave terminals (see Figure 20) wherein each slave comprises their own random access memory (see column 5, lines 55-63) and an operational data receiving portion for receiving operation and screen parameter data from the master terminal via a communications network (see column 6, lines 30-34 #013, 015, 152 and 158 of Figure 1). Fujita et al. further discloses the slave terminals comprising their own interface unit for connecting the terminals to

the master terminal via a communications network and master terminal interface unit (see #013, 014 and 015 of Figure 1) which the Office interprets functionally equivalent to Applicant's "second message interface." Fujita et al. discloses the slave terminals comprising of a display unit for outputting video data (see column 6, lines 10-11 and #10 of Figure 26). Fujita et al. discloses the operational data, received from master terminal, being forwarded to a task control portion, to execute a "task" upon the data and then passes the task executed data to a display portion for display output (see column 7, lines 17-29). Fujita et al. also discloses the slave terminals acquiring video data from the display portion, that has been task executed, and transmitting it back to the master terminal (see column 7, lines 29-36). Note, the Office interprets that the retransmitting of task executed upon data back to the master terminal by the slave terminals, inherently comprises of some sort of completion signal to end communication. Such, a signal is inherent to the communications network and protocols implemented by Fujita et al.. Fujita et al. further discloses a type of remote operation wherein drawing commands are also communicated through a transmission line (see column 1, lines 13-20). Although Fujita et al. discloses receiving video data transmitted from a slave terminal, Fujita et al. does not explicitly disclose the data as a scene graphics file or scene graph file. Lipkin discloses a graphics data processing method and apparatus implementing a server/client architecture where the server receives input from an internal VRML (or scene graphic file) world database or an external database (see columns 6-7, lines 20-26, 41-11 and Figure 1). It would have been obvious to one of ordinary skill in the art at the time invention was made to implement the VRML/scene graph file processing techniques of Lipkin with the remote control processing techniques of Fujita et al. in order to connect multiple computers to like data or the same virtual world data in order to

properly manipulate and display the data on each connected computer respectively (see column 1, lines 20-65 and column 3, lines 16-31 of Lipkin). (further see *Response to Arguments* below).

In reference to claim 2, Fujita et al. and Lipkin disclose all of the claim limitations as applied to claim 1 above. The Office interprets Fujita et al. to inherently produce a third message signal and transmit it to the slave terminals as the system can inherently operate using more than one request for remote operation as Fujita et al. discloses the apparatus as an apparatus for remote controlling a display device (see column 1, lines 6-8) which must be able to handle multiple requests for control.

In reference to claim 42, Fujita et al. and Lipkin disclose all of the claim limitations as applied to claim 1 above. The Office interprets the processing of Fujita et al. to perform in a functionally equivalent time period as Applicant's "real-time computations" since Fujita et al. discloses the apparatus to remotely control a display device from a users interaction (using keyboard/mouse, see column 1, lines 6-8 and column 6, lines 64-67).

In reference to claim 43, Fujita et al. and Lipkin disclose all of the claim limitations as applied to claim 42 above in addition, Lipkin explicitly discloses the server implementing a VRML agent as a software component for managing VRML data and the client implementing a browser with a VRML interpreter for processing VRML data (see columns 6-7, lines 64-2, column 7, lines 21-35 and #16, 26 and 28 of Figure 1).

In reference to claim 44, Fujita et al. and Lipkin disclose all of the claim limitations as applied to claim 1 above. Fujita et al. discloses a plurality of slave terminals (see Figure 20) wherein each slave comprises their own random access memory (see column 5, lines 55-63) and an operational data receiving portion for receiving operation and screen parameter data from the

master terminal via a communications network (see column 6, lines 30-34 #013, 015, 152 and 158 of Figure 1). Fujita et al. further discloses the slave terminals comprising their own interface unit for connecting the terminals to the master terminal via a communications network and master terminal interface unit (see #013, 014 and 015 of Figure 1) which the Office interprets functionally equivalent to Applicant's "second message interface." Fujita et al. discloses the slave terminals comprising of a display unit for outputting video data (see column 6, lines 10-11 and #10 of Figure 26). Fujita et al. discloses the operational data, received from master terminal, being forwarded to a task control portion, to execute a "task" upon the data and the passes the task executed data to a display portion for display output (see column 7, lines 17-29). Fujita et al. also discloses the slave terminals acquiring video data from the display portion, that has been task executed, and transmitting it back to the master terminal (see column 7, lines 29-36). Fujita et al. also discloses each slave terminal comprising a CPU connected with the display unit (see #3 and 10 of Figure 26).

3. Claims 3, 4, 39, 40, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. (U.S. Patent 5,825,336), Lipkin (U.S. Patent 5,999,944) and further in view of Ishiwata et al. (U.S. Patent 5,894,312).

In reference to claims 3 and 39, Fujita et al. and Lipkin disclose all of the claim limitations as applied to claims 2 and 1 respectively above however, neither Fujita et al. nor Lipkin explicitly disclose the master terminal comprising a third random access memory connected to second random access memory. Ishiwata et al. discloses an image processing apparatus connected to external machines, inputting data from the external machines to a plurality of image processing memories (see column 2, lines 22-25). Ishiwata et al. further

discloses the external machines to be external computers (see column 4, lines 40-43), inherently comprising of respective memory units. Note, the Office interprets the image processing apparatus functionally equivalent to the graphics master unit of Applicant's claims as the apparatus of Ishiwata discloses a plurality of image memories, seen equivalent to 1st and 3rd random access memories of Applicant's claims. Ishiwata et al. further discloses the image processing apparatus accessing the plurality of memory units by computing addresses of data in the memories in a storing and retrieving mode (see column 4, lines 48-65, column 18, lines 48-62 and Figure 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the multiple memory addressing techniques of Ishiwata et al. with the VRML/scene graph file processing techniques of Lipkin and remote control processing techniques of Fujita et al. in order to allow the remote processing apparatus of Ishiwata et al. to split use of image memory resources and provide simultaneous input/output from/to a plurality of slave/client devices, avoiding throughput degradation (see column 2, lines 17-21 of Ishiwata et al.).

In reference to claims 4 and 40, Fujita et al., Lipkin and Ishiwata et al. disclose all of the claim limitations as applied to claims 3 and 1 respectively above. Fujita et al. also discloses the master terminal comprising an interface unit, which connects the terminal to a communications network (see columns 5-6, lines 65-3 and #013 & 014 of Figure 1). Note, the Office interprets this interface unit functionally equivalent to the first message channel of Applicant's claim. Fujita et al. discloses the master terminal comprising a random access memory and a data receiving portion for receiving video data transmitted from a slave terminal (see column 5, lines 47-54, column 5-6, lines 65-3 and column 6, lines 54-55). Note, since Fujita et al. discloses the

master and slave devices connected via a communications network, the Office interprets that Fujita et al. inherently discloses a plurality of message channels as a communications network operates upon sent and received messages using a plurality of lines to communicate with target devices. Therefore, Fujita et al. inherently discloses the second message channel associated with the master and slave terminals. Ishiwata et al. discloses a control section associated with the image processing apparatus along with each external machine comprising their own data selector (see column 5, lines 6-10). Ishiwata et al. further discloses the control section communicating with the data selectors, a plurality of memory controllers and a host computer (see #1, 2 and 4 of Figure 1). Ishiwata et al. discloses the control section to transfer various pieces of data, along with control signals, such as access position, or memory addresses, in the image memory units (see column 5, lines 22-25). Ishiwata et al. discloses the data selectors retrieving image data stored in image memory units by selecting the desired data bus and passing the data along to the external machines/computers, for further processing (see columns 5-6, lines 57-3). Note, the Office interprets that the transmitting of data back between the processing elements of Ishiwata et al. and Fujita et al., inherently comprises of some sort of completion signal to end communication as Fujita et al. discloses the use of a communications network for connecting master and slave devices.

In reference to claim 45, Fujita et al. and Lipkin disclose all of the claim limitations as applied to claim 1 above. Fujita et al. does not explicitly disclose a partial image switching unit for each graphics client however Ishiwata et al. does. Ishiwata et al. discloses an image processing apparatus connected to external machines, inputting data from the external machines to a plurality of image processing memories (see column 2, lines 22-25). Ishiwata et al. further

discloses the image processing apparatus accessing the plurality of memory units by computing addresses of data in the memories in a storing and retrieving mode (see column 4, lines 48-65, column 18, lines 48-62 and Figure 9). Ishiwata et al. discloses a control section associated with the image processing apparatus along with each external machine comprising their own data selector (see column 5, lines 6-10). Ishiwata et al. further discloses the control section communicating with the data selectors, a plurality of memory controllers and a host computer (see #1, 2 and 4 of Figure 1). Ishiwata et al. discloses the control section to transfer various pieces of data, along with control signals, such as access position, or memory addresses, in the image memory units (see column 5, lines 22-25). Ishiwata et al. discloses the data selectors retrieving image data stored in image memory units by selecting the desired data bus and passing the data along to the external machines/computers, for further processing (see columns 5-6, lines 57-3). Note, the Office interprets the data selectors functionally equivalent to the partial image switching units of Applicant's claim. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the multiple memory addressing techniques of Ishiwata et al. with the VRML/scene graph file processing techniques of Lipkin and remote control processing techniques of Fujita et al. in order to allow the remote processing apparatus of Ishiwata et al. to split use of image memory resources and provide simultaneous input/output from/to a plurality of slave/client devices, avoiding throughput degradation (see column 2, lines 17-21 of Ishiwata et al.).

In reference to claim 46, Fujita et al., Lipkin and Ishiwata et al. disclose all of the claim limitations as applied to claim 9 above. Fujita et al. discloses the slave terminals comprising of a display unit for outputting video data (see column 6, lines 10-11 and #10 of Figure 26). Fujita et

al. discloses the operational data, received from master terminal, being forwarded to a task control portion, to execute a "task" upon the data and then passes the task executed data to a display portion for display output (see column 7, lines 17-29). Fujita et al. also discloses the slave terminals acquiring video data from the display portion, that has been task executed, and transmitting it back to the master terminal (see column 7, lines 29-36). Fujita et al. also discloses each slave terminal comprising a CPU connected with the display unit (see #3 and 10 of Figure 26). Ishiwata et al. discloses the control section to transfer various pieces of data, along with control signals, such as access position, or memory addresses, in the image memory units (see column 5, lines 22-25). Ishiwata et al. discloses the data selectors retrieving image data stored in image memory units by selecting the desired data bus and passing the data along to the external machines/computers, for further processing (see columns 5-6, lines 57-3).

4. Claims 5-10 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. (U.S. Patent 5,825,336), Lipkin (U.S. Patent 5,999,944), Ishiwata et al. (U.S. Patent 5,894,312) and further in view of Matsumoto et al. (U.S. Patent 5,666,544).

In reference to claims 5 and 41, Fujita et al. Lipkin and Ishiwata et al. disclose all of the claim limitations as applied to claims 4 and 40 respectively above however, neither Fujita et al. nor Ishiwata et al. explicitly disclose a synchronization master unit and synchronization client unit adapted to produce first and second test messages along with first and second test answer messages. Matsumoto et al. discloses a data communication system including a plurality of independent control units each controlling a plurality of independent functional operations (see column 1, lines 6-12). Matsumoto et al. explicitly discloses a "handshaking" method between a drive controller and an operation controller whereby communication mode settings are sent to

the drive controller and upon receipt of the data, a settings completion data is sent back to the operation controller (see column 2, lines 9-16 and Figure 18). Such method is performed every time data is sent to the drive controller therefore, the Office interprets Matsumoto et al. to disclose a plurality of test messages a long with a plurality of test answer messages. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the data handshaking methods of Matsumoto et al. with the multiple memory addressing techniques of Ishiwata et al., the VRML/scene graph file processing techniques of Lipkin and remote control processing techniques of Fujita et al. in order to control the transmission and reception of data from one device to another, making certain that complete data is transmitted/received thereby improving and controlling the efficiency of the system as a whole (see column 3, lines 28-32 of Matsumoto et al.).

In reference to claim 6, Fujita et al., Lipkin, Ishiwata et al. and Matsumoto et al. disclose all of the claim limitations as applied to claim 5 above. The Office interprets the processing of Fujita et al. to perform in a functionally equivalent time period as Applicant's "real-time computations" since Fujita et al. discloses the apparatus to remotely control a display device from a users interaction (using keyboard/mouse, see column 1, lines 6-8 and column 6, lines 64-67).

In reference to claim 7, Fujita et al., Lipkin, Ishiwata et al. and Matsumoto et al. disclose all of the claim limitations as applied to claim 6 above. Lipkin explicitly discloses the server implementing a VRML agent as a software component for managing VRML data and the client implementing a browser with a VRML interpreter for processing VRML data (see columns 6-7, lines 64-2, column 7, lines 21-35 and #16, 26 and 28 of Figure 1).

In reference to claim 8, Fujita et al., Lipkin, Ishiwata et al. and Matsumoto et al. disclose all of the claim limitations as applied to claim 7 above. Fujita et al. discloses a plurality of slave terminals (see Figure 20) wherein each slave comprises their own random access memory (see column 5, lines 55-63) and an operational data receiving portion for receiving operation and screen parameter data from the master terminal via a communications network (see column 6, lines 30-34 #013, 015, 152 and 158 of Figure 1). Fujita et al. further discloses the slave terminals comprising their own interface/unit for connecting the terminals to the master terminal via a communications network and master terminal interface unit (see #013, 014 and 015 of Figure 1) which the Office interprets functionally equivalent to Applicant's "second message interface." Fujita et al. discloses the slave terminals comprising of a display unit for outputting video data (see column 6, lines 10-11 and #10 of Figure 26). Fujita et al. discloses the operational data, received from master terminal, being forwarded to a task control portion, to execute a "task" upon the data and then passes the task executed data to a display portion for display output (see column 7, lines 17-29). Fujita et al. also discloses the slave terminals acquiring video data from the display portion, that has been task executed, and transmitting it back to the master terminal (see column 7, lines 29-36). Fujita et al. also discloses each slave terminal comprising a CPU connected with the display unit (see #3 and 10 of Figure 26).

In reference to claim 9, Fujita et al., Lipkin, Ishiwata et al. and Matsumoto et al. disclose all of the claim limitations as applied to claim 7 above. Ishiwata et al. discloses an image processing apparatus connected to external machines, inputting data from the external machines to a plurality of image processing memories (see column 2, lines 22-25). Ishiwata et al. further discloses the image processing apparatus accessing the plurality of memory units by computing

addresses of data in the memories in a storing and retrieving mode (see column 4, lines 48-65, column 18, lines 48-62 and Figure 9). Ishiwata et al. discloses a control section associated with the image processing apparatus along with each external machine comprising their own data selector (see column 5, lines 6-10). Ishiwata et al. further discloses the control section communicating with the data selectors, a plurality of memory controllers and a host computer (see #1, 2 and 4 of Figure 1). Ishiwata et al. discloses the control section to transfer various pieces of data, along with control signals, such as access position, or memory addresses, in the image memory units (see column 5, lines 22-25). Ishiwata et al. discloses the data selectors retrieving image data stored in image memory units by selecting the desired data bus and passing the data along to the external machines/computers, for further processing (see columns 5-6, lines 57-3). Note, the Office interprets the data selectors functionally equivalent to the partial image switching units of Applicant's claim.

In reference to claim 10, Fujita et al., Lipkin, Ishiwata et al. and Matsumoto et al. disclose all of the claim limitations as applied to claim 9 above. Fujita et al. discloses the slave terminals comprising of a display unit for outputting video data (see column 6, lines 10-11 and #10 of Figure 26). Fujita et al. discloses the operational data, received from master terminal, being forwarded to a task control portion, to execute a "task" upon the data and the passes the task executed data to a display portion for display output (see column 7, lines 17-29). Fujita et al. also discloses the slave terminals acquiring video data from the display portion, that has been task executed, and transmitting it back to the master terminal (see column 7, lines 29-36). Fujita et al. also discloses each slave terminal comprising a CPU connected with the display unit (see #3 and 10 of Figure 26). Ishiwata et al. discloses the control section to transfer various pieces of

data, along with control signals, such as access position, or memory addresses, in the image memory units (see column 5, lines 22-25). Ishiwata et al. discloses the data selectors retrieving image data stored in image memory units by selecting the desired data bus and passing the data along to the external machines/computers, for further processing (see columns 5-6, lines 57-3).

Response to Arguments

5. Applicant's arguments filed 09/27/06 have been fully considered but they are not persuasive.

In reference to claims 1-10 and 39-46, Applicant argues that the master display terminal of Fujita et al. does not re-compute object and/or event parameter values of the first scene graphics data (see page 22, paragraphs 2-4 of Applicant's Remarks). The Office disagrees. Fujita et al. firstly discloses the master terminal receiving video data transmitted from a video slave terminal by a data receiving portion (see column 6, lines 54-55). Fujita et al. also discloses the master terminal receiving operational data from a keyboard and mouse and converting such data along with the display data derived from the received video data, to display position data for the slave display terminal (see columns 6-7, lines 64-6). The Office interprets that the converting process of Fujita et al. is functionally equivalent to Applicant's "re-computing" since display position data can be broadly interpreted as including Applicant's object and/or event parameters and further since such display position is sent to the slave display terminal. The Office therefore believes Fujita et al. to disclose the re-computing element as recited in the current claim language.

Further, Applicant goes on to argue that the master terminal does not rely upon scene graphics data file stored in its random access memory when generating the operational data (see page 22, 3rd paragraph of Applicant's Remarks). The Office points to the above rejection where it can be seen that Fujita's master terminal does indeed receive video data and comprises multiple memory units. Also, it can interpreted that Fujita et al. inherently utilizes the memory (see #2 of Figure 1), which includes RAM, to store, at least temporarily, the received video data in order to perform the converting to slave bound display data. The Office therefore believes Fujita et al. to disclose the re-computing element as recited in the current claim language.

Also, Applicant argues that Fujita et al. does not perform the re-computing in dependence on both the current parameter values and on the current state of the signal input (see page 22, last paragraph of Applicant's Remarks). The Office disagrees and states that the current video data received from the slave terminal inherently comprises positional data or object and/or even parameters therefore, when the converting is performed upon such already processed data, it is deem "re-computed." Further, as seen above and mentioned by the Applicant (see last 2 lines of page 22), the converting in Fujita et al. also takes into account operational data input from a keyboard and mouse. The Office interprets such operational data received from a keyboard/mouse functionally equivalent to the signal input received and connected to an external input unit, as stated above. The Office therefore believes Fujita et al. to disclose the re-computing element as recited in the current claim language.

Further, Applicant argues that Fujita et al. does not disclose storing the re-computed, or converted values and therefore Examiner's interpretations of the first message in view of Fujita et al. are not correct (see page 23, paragraphs 1-3 of Applicant's Remarks). The Office disagrees

and points to columns 6-7, 64-6 of Fujita et al. whereby Fujita et al. discloses transmitting the converted display position data to the slave terminal. Also, it can interpreted that Fujita et al. inherently utilizes the memory (see #2 of Figure 1), which includes RAM, to store, at least temporarily, the converted to slave bound display data before transmitting the data to the slave terminal. Further, Applicant argues that the present application refers to storing the generation and modification of a respective data file in the random access memory (see page 23, last paragraph of Applicant's Remarks). In response to Applicant's argument that the references fail to show certain features of Applicant's invention, it is noted that the features upon which applicant relies (i.e., storing the generation and modification of a respective data file in the random access memory) are not recited in the rejected claim(s). The claims are not written so that such a limitation is explicitly brought out, for example, claim 1 recites, "a graphics master unit which has a first random access memory adapted to...and store the object and/or event parameter values of the first scene graphics data file..." (see lines 6-12 of claim 1). The Office broadly interprets from such language that the graphics master unit stores the object and/or event parameter values of the first scene graphics data file and not necessarily stores it in the random access memory as argued by Applicant. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, the Office believes Fujita et al. to disclosed the above argued limitations.

Also, Applicant argues that Fujita et al. does not disclose the sending of a second message to the master terminal which signals conclusion of the image data computation of the image (see pages 24-25 of Applicant's Remarks). Applicant further traverses Examiner's

previous arguments based upon the inherent protocols in computer network communication and seems to conclude that the current claims produce an application-layer type message instead of Examiner's interpreted transport-layer type message (see pages 24-25 of Applicant's Remarks). In response to Applicant's argument that the references fail to show certain features of Applicant's invention, it is noted that the features upon which applicant relies (i.e., the second message being of application-layer type and not transport-layer type) are not recited in the rejected claim(s). The Office believes it understands Applicant's argument however the Office points out that claim 1, for example, does in deed solely recite, "a second message...which signals the conclusion of the image data computation..." (see last 3 lines of claim 1). The term "message" in computer communication is very vague and can/is interpreted broadly as the communications network and protocols signals, which comprise of signals to synchronize the transmission of data, inherently implemented by Fujita et al.. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, the Office believes Fujita et al. to disclosed the above argued limitation.

Further, Applicant goes on to argue that the current claimed invention is completely foreign to the concept of remote control in computing environments (see page 26 of Applicant's Remarks). The Office indicates that although Applicant's disclosure maybe directed to a different invention that is described by Fujita et al., the current claim language of the application is broadly interpreted so that the invention and disclosure of Fujita et al. can be applied thereto. In addition, in response to Applicant's argument that Fujita et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of Applicant's endeavor or, if not, then

be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Fujita et al. is explicitly dealing with the transmission of video and graphics data between a client/server in a computer network. Further support for Fujita et al. being analogous art can be found when viewing Figure 5 of Applicant's drawings with reference to Fujita et al.

Finally, Applicant seems to traverse the combination of Fujita et al. and Lipkin (see pages 27-28 of Applicant's Remarks). In response to Applicant's argument that the teachings of Fujita et al. and Lipkin would not lead to the distributed computing of image data involving a graphics master and at least two graphics clients, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Fujita et al. is explicitly dealing with the transmission of video and graphics data between a client/server in a computer network and Lipkin discloses a graphics data

processing method and apparatus implementing a server/client architecture where a three-dimensional virtual world can be stored, reconstructed and navigated. Both references are directed towards the transferring of video/graphics data between client/server computer network systems. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to implement the three-dimensional world graphics data processing techniques of Lipkin with the video data client/server control processing techniques of Fujita et al. in order to connect multiple computers to like data or the same virtual world data in order to properly manipulate and display the data on each connected computer respectively (see column 1, lines 20-65 and column 3, lines 16-31 of Lipkin).

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:00 AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung, can be reached at (571) 272-7794.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

571-273-8300 (Central Fax)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (571) 272-2600.

MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

aac
12/7/06

Antonio Caschera
Patent Examiner